

## Section 4.15

# Threatened and Endangered Species

This section discusses threatened and endangered wildlife species in the study area, including those that are listed or proposed for listing under the federal Endangered Species Act (ESA), and those that are listed on the Utah sensitive species list. This section has been updated to reflect changes that have occurred in the listing status of species since publication of the Final EIS, including the listing of four additional species that could occur in the study area as state species of special concern: northern goshawk, bobolink, Preble's shrew, and kit fox.

### **4.15.1 Approach and Methodology**

#### **4.15.1.1 Changes since June 2000 Final EIS**

To update the affected environment and environmental consequences information associated with special-status wildlife species in the study area, Sections 3.15 and 4.15 of the Final EIS were reviewed to determine what changes that had taken place since publication of the Final EIS. The study area for threatened and endangered species is described in Section 4.0.1, *Study Area*, of this document.

Coordination letters were sent to the U.S. Fish and Wildlife Service (USFWS) and the Utah Department of Natural Resources (UDNR) Division of Wildlife Resources requesting updated information on special-status species that could occur in the study area (Perkins pers. comm.). A letter was received from USFWS in December 2003 that provided an updated list of federally listed species that could occur in Davis and Salt Lake Counties (Maddox pers. comm.) (Appendix A). A copy of the revised Utah sensitive species list, which was updated in December 2003, was obtained from UDNR Division of Wildlife Resources (UDNR, Division of Wildlife Resources 2003a), as was a copy of the Salt Lake and Davis Counties species lists, which were updated in February 2004 (UDNR, Division of Wildlife Resources 2004). These updated federal and state species lists were compared to the information presented in the Final EIS and used, in conjunction with an evaluation of species habitat requirements, to update the list of species that could potentially occur in the study area and the effects the proposed action could have on those species.

The information presented in this section is also consistent with the analysis conducted for the wildlife technical memorandum (Jones & Stokes 2005) and Section 4.13, *Wildlife*, of this document.

#### **4.15.1.2 Changes since Draft Supplemental EIS**

Changes have been made to the calculations of impacts on threatened and endangered species since the Draft Supplemental EIS was published in December 2004. Those changes were made for the following reasons.

- A correction was made to the number of state species of special concern listed on the state list for Salt Lake and Davis Counties, because a species was not described in the Final EIS. See Sections 4.15.2, *Affected Environment* and 4.15.2.4, *State Species of Special Concern*.
- As stated in Section 4.0, *Introduction*, additional minor modifications have been made to the alignments of Alternatives A and E (Final EIS Preferred Alternative) since preparation of the Draft Supplemental EIS. In addition, updates were made to the developed lands dataset from 1997 and the wildlife habitat map. These updates and recalculations affected the calculations of acreage of habitat lost. See 4.15.3.2, *Threatened and Endangered Wildlife*.
- The analysis of grasshopper sparrow was removed from Sections 4.15.2.4, *State Species of Special Concern*, and 4.15.3, *Environmental Consequences and Mitigation Measures*, because it was determined that the species was unlikely to occur in the project study area.

## 4.15.2 Affected Environment

This section presents a summary of updated information on the affected environment relative to special-status wildlife species. Since publication of the Final EIS, one species proposed for listing on the federal endangered species list has been removed (Appendix A) and one has been added. In addition, since publication of the Final EIS, six species listed on the Utah sensitive species list for Salt Lake and Davis Counties have been removed (UDNR, Division of Wildlife Resources 2003a) and 16 have been added (UDNR, Division of Wildlife Resources 2004).

Table 4.15-1, which updates Table 3-33 in the Final EIS, lists the special-status species that occur or could potentially occur in the study area and indicates which species have been added to or removed from the federal endangered species list or added to the state sensitive species list since publication of the Final EIS. Table 4.15-1 lists the 14 special-status species (10 described in the Final EIS and four additional Species) evaluated in this document. As described in Section 4.15.2.1, Utah no longer designates state threatened or endangered species.

**Table 4.15-1** Special-Status Species That Occur or Could Occur in Study Area

Species		Status*	
Common Name	Scientific Name	Federal	State
Plants			
Ute ladies' tresses	<i>Spiranthes diluvialis</i>	T	–
Mammals			
Preble's shrew	<i>Sorex preblei</i>	–	SPC
Spotted bat	<i>Euderma maculatum</i>	–	SPC
Pale Townsend's big-eared bat	<i>Plecotus townsendi pallescens</i>	–	SPC
Kit fox	<i>Vulpes macrotis</i>	–	SPC
Birds			
American white pelican	<i>Pelicanus erthrothynchos</i>	–	SPC
Northern goshawk	<i>Accipiter gentiles</i>	–	CAS
Ferruginous hawk	<i>Buteo regalis</i>	–	SPC

Species		Status*	
Common Name	Scientific Name	Federal	State
Bald eagle	<i>Haliaeetus leucocephalus</i>	T	–
Long-billed curlew	<i>Numenius americanus</i>	–	SPC
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	P	SPC
Short-eared owl	<i>Asio flammeus</i>	–	SPC
Burrowing owl	<i>Athene cunicularia</i>	–	SPC
Bobolink	<i>Dolichonyx oryzivorus</i>	–	SPC

Notes:

\* T = Threatened under the ESA; E = Endangered under the ESA; P = Proposed for listing under the ESA;  
SPC = Utah State Species of Special Concern; CAS = Utah State Conservation Agreement Species.

Shaded cells indicate special-status species whose status has changed since publication of the Final EIS. Species removed from the Utah sensitive species list since publication of the Final EIS are not noted in this table.

Source: U.S. Fish and Wildlife Service 2003; UDNR, Division of Wildlife Resources 2003a; UDNR, Division of Wildlife Resources 2004.

### 4.15.2.1 Definitions

As described in the Final EIS, the threatened and endangered species addressed in this section include all plant and animal species that are proposed for listing (P) and species currently listed as threatened (T), endangered (E), or candidate (C) by USFWS. Also discussed are State of Utah species of special concern (SPC) and conservation agreement species (CAS), which are listed on the Utah sensitive species list. The definitions described in the Final EIS have not changed, except that the state no longer designates species as threatened or endangered. As a result, all state special-status species are only assigned the SPC or CAS designation, as appropriate. There have been no other changes to this section since publication of the Final EIS.

### 4.15.2.2 Federally Listed Species

Two species listed as threatened under the ESA were described in the Final EIS: bald eagle (*Haliaeetus leucocephalus*) and Ute ladies' tresses (*Spiranthes diluvialis*). There have been no changes to the federal status of either species or its potential to occur in the study area since publication of the Final EIS.

As noted in the Final EIS, peregrine falcon (*Falco peregrinus*), which was included in the list of federally endangered species in the biological opinion for the proposed action (U.S. Fish and Wildlife Service 1999a) (Appendix A), was delisted in August 1999 and is no longer considered in this section because it is no longer considered a special-status species (U.S. Fish and Wildlife Service 1999b).

Since publication of the Final EIS, the yellow-billed cuckoo was added to the federal list of species proposed for listing as threatened under the ESA. This species is still included on the Utah sensitive species list for Salt Lake and Davis Counties (UDNR, Division of Wildlife Resources 2004), as described in the Final EIS. The Final EIS concluded that migrant yellow-billed cuckoos might be affected by this project because they are rare migrants in the regional study area, but no yellow-billed cuckoos were detected during bird surveys conducted between 1999 and 2003 within the area of the proposed Legacy Nature Preserve (Utah Department of Transportation 2004). Recent documentation of a yellow-billed

cuckoo in a peregrine falcon nest in Salt Lake City, however, suggests that this species still migrates through the study area.

Mountain plover (*Charadrius montanus*), which was also described as a species proposed for listing as threatened under the ESA in the Final EIS, is no longer proposed for listing. Table 4.15-1 above provides an updated list of all federally listed species that occur or could potentially occur in the study area.

### 4.15.2.3 State-Listed Species

Bald eagle (*Haliaeetus leucocephalus*), ferruginous hawk (*Buteo regalis*) and yellow-billed cuckoo (*Coccyzus americanus*) were included in the Final EIS as state threatened species. The State of Utah no longer designates state threatened and endangered species, but ferruginous hawk and yellow-billed cuckoo remain on the Utah sensitive species list as species of special concern (UDNR, Division of Wildlife Resources 2003a).

### 4.15.2.4 State Species of Special Concern

Six species included in the Final EIS as state species of special concern are no longer listed on the Utah sensitive species list: black tern (*Chlidonias niger*), Caspian tern (*Sterna caspia*), common yellowthroat (*Geothlypis trichas*), osprey (*Pandion haliaetus*), Swainson's hawk (*Buteo swainsoni*), and Brazilian free-tailed bat (*Tadarida brasiliensis*) (UDNR, Division of Wildlife Resources 2003a).

However, 16 state species of special concern not described in the Final EIS are now listed on the state list for Salt Lake and Davis Counties (UDNR, Division of Wildlife Resources 2004). Four of these species—northern goshawk (*Accipiter gentilis*), bobolink (*Dolichonyx oryzivorus*), Preble's shrew (*Sorex preble*), and kit fox (*Vulpes macrotis*)—could occur in the study area, as described below following the table.

Additionally, information on four species discussed in the Final EIS—least chub, boreal toad, spotted frog, and mountain plover—and 12 of the newly added species of special concern suggest that they do not occur in the study area. These species are not, therefore, likely to be affected by the proposed action. Table 4.15-2 lists the 16 species excluded from further analysis, their distributions and the reasons they were excluded from further analysis.

**Table 4.15-2** State Species of Special Concern Excluded from Further Analysis

Species		
Common Name	Scientific Name	Distribution and Habitat Requirements
Invertebrates		
Lyrate mountainsnail	<i>Oreohelix haydeni</i>	Favors habitats with limestone talus. Known distribution outside study area.
Western pearlshell	<i>Margaritifera falcate</i>	Not likely to occur in the study area because of habitat requirements. Known distribution outside study area.
Fish		
Least chub	<i>Lotichthys phlegethontis</i>	Known distribution outside study area.
June sucker	<i>Chasmistes liorus</i>	Known distribution outside study area.
Bluehead sucker	<i>Catastromus discobalus</i>	Known distribution outside study area.

Species		
Common Name	Scientific Name	Distribution and Habitat Requirements
Bonneville cutthroat trout	<i>Oncorhynchus clarki utah</i>	Known distribution outside study area.
Amphibians and Reptiles		
Boreal toad	<i>Bufo boreas</i>	Known distribution outside study area.
Spotted frog	<i>Rana pretiosa</i>	Known distribution outside study area.
Smooth greensnake	<i>Opheodrys vernalis</i>	Known distribution outside study area.
Birds		
Sharp-tailed grouse	<i>Typanuchus phasianellus</i>	Known distribution outside study area.
Greater sage grouse	<i>Centrocercus urophasianus</i>	Known distribution outside study area.
Mountain Plover	<i>Charadrius montanus</i>	Only 2 historic records in vicinity of project study area; not likely to occur there.
Black swift	<i>Cypseloides niger</i>	Known distribution outside study area. Occurs in mountainous regions. Nesting elevations are from 1,829 m (6,000 ft) to 3,505 m (11,500 ft).
Lewis's woodpecker	<i>Malanerpes lewis</i>	Occurs over a wide range of forested habitats. Rare and unpredictable occurrence in study area.
Three-toed woodpecker	<i>Picoides tridactylus</i>	Occurs in coniferous forests, generally above 2,438 m (8,000 ft). Known distribution outside study area.
Grasshopper sparrow	<i>Ammodrammus savannarum</i>	Only one historic record (1942), known existing distribution outside of study area.

## Northern Goshawk

Northern goshawks are rare migrants in the Great Salt Lake ecosystem; they are more abundant in the higher forested reaches of the watersheds of Great Salt Lake and elsewhere in Utah (Ryser 1985). Goshawks reside in the Great Basin during winter, and there is some altitudinal migration from mountain forests down into the foothills and valleys, as well as immigration of individuals into the Great Basin from the north (Ryser 1985). Goshawks have been observed foraging in open sagebrush areas in Nevada, where they prey on ground squirrels (Hughes 1999). Also, wintering goshawks use cottonwood riparian areas in the Rocky Mountains and Intermountain Region (Squires and Ruggiero 1995), as well as adjacent open areas (Hughes 1999). Northern goshawks have not been observed in the project study area but rare individuals could potentially occur there in winter.

## Bobolink

Isolated breeding populations of bobolinks occur in northern Utah near Centerville, Logan, Brigham City, Kamas, Heber, Morgan, Mountain Green, West Layton, and Provo. Bobolinks nest and forage in hydric meadows, wet grasslands, and irrigated areas (primarily pasture and hay fields) (Martin and Gavin 1995). Although historically common in northern Utah, bobolinks are now rare in the area, and they often exhibit unpredictable fluctuations in population numbers. During the breeding season, their diet includes weed and grain seeds, a variety of larval and adult insects, spiders, and harvestmen. The young are exclusively fed invertebrates. During migration and winter periods, grain seeds are the staple diet, supplemented

occasionally with insects. Bobolinks are rare visitors in the Great Salt Lake Ecosystem (GSLE); they have not been observed in the project study area. Because of the relatively small amount of suitable habitat and the uncertain status of the species in the project study area, the potential impacts of the build alternatives would be small or nonexistent.

### ***Preble's Shrew***

Very little is known about the distribution of Preble's shrew in Utah. Its range, as it is currently understood, includes much of Montana, central Idaho, eastern Oregon, and surrounding areas in semiarid to arid habitats. Records of its occurrence in Timpie Springs along the southern shore of Great Salt Lake indicate its presence in this region. The known habitat of this species includes marshy areas such as creeks and bogs bordered by willows and other brushy plants. Preble's shrews have been recently found in a montane sagebrush community in northern California, suggesting that the species may also use drier habitats (Zevuloff and Collett 1988). Because similar habitats are found in the project study area, the species may occur there; however, its status in the study area is unknown. Because of the relatively small amount of suitable habitat and the uncertain status of the species in the project study area, the potential impacts of the build alternatives would be small or nonexistent.

### ***Kit Fox***

Great Salt Lake is located on the northeastern edge of the known distribution of kit fox (Zevuloff and Collett 1988). Kit foxes are found throughout Utah in desert and semiarid regions with flat shrub or shrub-grass communities with little groundcover. Where these foxes occur in the Great Basin, shadscale, greasewood, and sagebrush communities are common. Major prey items include desert rodents, jackrabbits, cottontail rabbits, ground-nesting birds, reptiles, and insects. Kit foxes are rare summer transients in the GSLE, but they have not been observed in the project study area. Since this area is outside their known range, the potential impacts of the build alternatives would be small or nonexistent.

## **4.15.3 Environmental Consequences and Mitigation Measures**

As described in the Final EIS, the proposed action could affect both federally listed species and state species of special concern. Since publication of the Final EIS, five additional species that could occur in the study area have been added to the state list for Davis and Salt Lake Counties, and six species of special concern were removed from the state list. The following section provides an update of the environmental consequences and mitigation measures specific to the special-status species in the study area.

The estimates of potential direct impacts on the special-status species described below are drawn from the wildlife technical memorandum (Jones & Stokes 2005), which quantifies by habitat type the potential direct impacts of each build alternative. For each species of concern, the text below describes the range of the amount of suitable habitat (from most lost to least lost) that could be directly affected by the build alternatives. The wildlife technical memorandum and Section 4.13, *Wildlife*, of this document describe more fully the relationship between habitat lost to a build alternative and remaining similar habitat available for wildlife.

### **4.15.3.1 Threatened and Endangered Vegetation**

As described in the Final EIS, although Ute ladies' tresses was originally documented as occurring in the region, it was not found in the study area and would therefore not be affected by the proposed action. There has been no change to this section since publication of the Final EIS.

### **4.15.3.2 Threatened and Endangered Wildlife**

The Final EIS presented impacts on threatened and endangered wildlife species in two categories: avian (bird) and non-avian. Environmental consequences and mitigation measures for avian and non-avian species that occur or could potentially occur in the study area are updated below.

#### ***Non-avian Species—Federally Listed***

As described in the Final EIS, no federally listed non-avian species occur or could occur in the study area.

#### ***Non-avian Species—State Species of Special Concern***

Since publication of the Final EIS, the Brazilian free-tailed bat was removed from the state list. In addition, two additional non-avian species that could occur in the study area—kit fox and Preble's shrew—have been listed as state species of special concern. Potential impacts on those species are described below.

#### **No-Build Alternative**

##### ***Existing Conditions (2004)***

Under the existing conditions (2004) No-Build Alternative, there would be no project-related impacts on any non-avian species listed as state species of special concern.

##### ***Future Conditions (2020)***

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. In addition, residential, commercial, and industrial development will continue in the study area. These future projects could affect non-avian species in the study area listed as state species of special concern. See the wildlife technical memorandum for a detailed discussion of foreseeable future conditions in the study area.

#### **Build Alternatives**

##### ***Preble's Shrew***

Because hydric meadow habitats similar to those that support Preble's shrews are present, the species may occur in the study area. All the proposed build alternatives would result in some loss of such habitat. As described in the wildlife technical memorandum (Jones & Stokes 2005), this loss could range from 30.6 ha (75.6 ac) under Alternative E to 41.7 ha (103.0 ac) under Alternative B. Because no information is currently available on the density of this species in different habitats, it is not possible to estimate the number of shrews that could potentially be affected by the proposed action. However, the direct impacts

of the Legacy Parkway project would affect less than 0.1 percent of the overall extent of habitats potentially suitable for Preble's shrew in the regional study area.<sup>1</sup>

### ***Kit Fox***

Because there is limited suitable habitat along the Wasatch Mountains in the vicinity of the study area, kit foxes are considered extremely rare and have a low probability of occurring there. If they do occur in the study area, they are most likely to frequent salt desert scrub habitats. All the proposed build alternatives could result in the direct loss of suitable habitat that could potentially be used by this species. As described in the wildlife technical memorandum, this loss could range from 32.2 ha (79.6 ac) under Alternative B to 61.7 ha (152.5 ac) under Alternative C. The direct impacts of the Legacy Parkway project would affect less than 0.1 percent of the overall extent of these habitats in the regional study area.

### ***Mitigation Measures***

Establishment of the Legacy Nature Preserve, as described in the Wildlife section in Section 4.13.3.14, *Mitigation Measures*, would mitigate the loss of habitat of Preble's shrew and kit fox.

### ***Bird Species—Federally Listed***

As described in Section 4.15.2.1 above, the yellow-billed cuckoo was proposed for listing as threatened under the federal ESA after the Final EIS was published. However, because the cuckoo was considered a state species of special concern in the Final EIS, impacts on the species were disclosed in that document, and those impacts have not changed.

Similarly, impacts on bald eagle have not changed since publication of the Final EIS. To summarize the potential project-related impacts on bald eagles, the highway construction phase would be the most disturbing. Based on the USFWS biological opinion, the Final EIS concluded that this disturbance could lead to abandonment of an occupied nest site and several winter roost sites, either temporarily or permanently (U.S. Fish and Wildlife Service 1999a). However, with implementation of reasonable and prudent measures to minimize take of bald eagles during the construction phase, there was no empirical evidence to suggest that Legacy Parkway construction activities would have any negative influence on bald eagles. During the operations phase of the proposed action, it is possible that bald eagles could be struck by vehicles when the eagles are foraging for carrion along the highway. In addition, all the build alternatives would decrease available hunting areas for bald eagles and the availability of the prey base; however, the Legacy Nature Preserve would provide high quality foraging habitat in a protected state, which would lessen the effects of these impacts on breeding and wintering bald eagles.

### ***Bird Species—State Species of Special Concern***

Six state bird species of special concern have been removed from the Utah sensitive species list since publication of the Final EIS and are therefore no longer addressed in this document. Two additional avian species that could occur in the study area—bobolink and northern goshawk—have been listed as state species of special concern. Potential impacts on these species are described below.

There have been no other changes to the impacts or mitigation measures described for threatened and endangered species since publication of the Final EIS.

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<sup>1</sup> See Section 4.13, *Wildlife*, for a definition of the geographic extent of the regional study area.



## **No-Build Alternative**

### ***Existing Conditions (2004)***

Under the existing conditions (2004) No-Build Alternative, there would be no project-related impacts on bobolink or northern goshawk.

### ***Future Conditions (2020)***

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. In addition, residential, commercial, and industrial development will continue in the study area. These future projects could impact bobolink and northern goshawk in the study area.

## **Build Alternatives**

### ***Bobolink***

Bobolinks have occasionally been observed in agricultural fields at the northern end of the study area near the FBWMA. However, no one has ever documented the area of use beyond its general location or how many individuals use the area. All the proposed build alternatives could result in the direct loss of some suitable breeding and foraging habitats for this species, but site-specific habitat use information for this species is not available for the project study area. Preconstruction surveys in this area would therefore be necessary to determine whether any build alternative could disturb active bobolink nests (Federal Highway Administration et al. 2000).

### ***Northern Goshawk***

Northern goshawks have not been observed in the study area. However, some studies on the seasonal movement and habitat use patterns suggest that goshawks could potentially use the study area during the winter. Moreover, the study area supports prey species that could sustain wintering individuals that move through the Great Salt Lake Ecosystem. The few wintering individuals that may occur in this region probably range over a large area that supports a variety of grassland and shrubland habitats. Direct habitat loss under any proposed build alternative would not be likely to affect this species.

## **Mitigation Measures**

As described in the Final EIS, the reasonable and prudent mitigation measures outlined in the biological opinion for the proposed action would be implemented to minimize take of bald eagles. Table 4.15-3 lists these measures and their terms and conditions. The peregrine falcon has been removed from the endangered species list (64 Federal Register 46541–46558). Therefore, terms and conditions of the biological opinion are no longer considered nondiscretionary under authority of the ESA with respect to the peregrine falcons; however, USFWS still recommends their implementation (U.S. Fish and Wildlife Service 1999b). The Legacy Nature Preserve would also mitigate the loss of habitat for wildlife species that use the study area. In addition, site-specific preconstruction surveys would be completed for Preble's shrew and bobolink to determine whether any proposed build alternative could disturb local populations or active nests of the species.

See Section 4.13, *Wildlife*, for a more complete description of the mitigation proposed for impacts on wildlife species.

**Table 4.15-3** Reasonable and Prudent Mitigation Measures and Terms and Conditions of Biological Opinion

Mitigation Measure Number	Description of Measure	Terms and Conditions
RPM 1	Measures shall be implemented to prevent construction activities from impacting nesting or wintering bald eagles.	<p>No construction activity will occur from the courtship through incubation/brood rearing periods (approximately January 1 through May 21) within one mile of the bald eagle nest.</p> <p>During the nestling through post fledging dependency period (approximately May 21 through August 31), the one-mile buffer may be relaxed to one-half mile for some activities. Coordination with and concurrence from USFWS must occur prior to any activities occurring under this term/condition.</p> <p>FHWA shall require continuous monitoring of the bald eagle nest by a qualified wildlife biologist for activities occurring within one mile of the bald eagle nest.</p> <p>If, during monitoring, the bald eagles appear disturbed in any manner, construction activities shall immediately cease, and FHWA shall immediately follow the reporting requirement issued in the biological opinion.</p> <p>No construction activities will occur from November 1 through March 31 within one-half mile of the bald eagle winter roosting sites.</p>
RPM 2	Measures shall be implemented to prevent construction activities from impacting nesting peregrine falcons.	<p>No construction activities will occur from the courtship through incubation/brooding periods (approximately February 1 through June 21) within one mile of the peregrine falcon aerie.</p> <p>During the nestling through post-fledging dependency period (June 21 through August 31), the one-mile buffer may be relaxed to one-half mile for some activities. Coordination with and concurrence from the USFWS must occur prior to any activities occurring under this term/condition.</p> <p>FHWA shall require continuous monitoring of the peregrine falcon aerie by a qualified wildlife biologist for any activities occurring within one mile of the peregrine falcon aerie.</p> <p>If, during monitoring, the peregrine falcons appear disturbed in any manner, construction activities shall immediately cease, and FHWA shall immediately follow the reporting requirements issues in this biological opinion.</p>
RPM 3	Measures shall be implemented to control human use of the area so as to prevent take, particularly harm and harassment, to nesting bald eagles and peregrine falcons and/or their young as well as to wintering bald eagles.	<p>Project employees will be informed of the presence of the bald eagle and peregrine falcon and the need to minimize disturbance during nesting and wintering periods.</p>

Mitigation Measure Number	Description of Measure	Terms and Conditions
RPM 4	Measures shall be implemented to prevent highway maintenance activities from impacting nesting bald eagles and peregrine falcons over the life of the project.	<p>No recreational trail facilities which encourage extended human use of the area will be constructed within one mile of the nest and roost sites.</p> <p>Right-of-way fence will be constructed and maintained along the length of the highway to deter human use of the proposed Legacy Nature Preserve.</p> <p>No maintenance activities that result in noise or activity levels above that of normal highway operation conditions shall be conducted within one mile of the peregrine falcon aeries and one mile of the bald eagle nest site during the breeding season.</p> <p>No maintenance activities that result in noise or activity levels above that of normal highway operation conditions shall be conducted from November 1 through March 31 within one-half mile of the bald eagle winter roost sites.</p>
<p>Source: Final Formal Biological Opinion for Project Number SP-0067, Legacy Parkway, Salt Lake and Davis Counties, Utah (U.S. Fish and Wildlife Service 1999a).</p>		